

INDEX TO VOLUME 88

Compiled by Willetta Lueshen

This index is primarily one to new information. Previously published information referred to in this volume has not been indexed unless extensive comparisons or reinterpretations are involved. For some species, especially ones not in the A. O. U. Checklist area, scientific names only have been entered, and in some instances entries under scientific names are more extensive than those under vernacular names. New generic, specific, and subspecific names are printed in **boldface** type.

- Abnormality, see Deformity
- Accipiter cooperii*, 76, 815-827
 - gentilis*, 660, 815-827
 - striatus*, 617
- Actitis hypoleucos*, 167
 - macularia*, 167-168, 181, 241
- Acryllium vulturinum*, 543-559
- Agelaius phoeniceus*, 30-34, 100-107, 251-253, 436
- Agelaius tricolor*, 30-34
- Agriocharis ocellata*, 543-559
- Aimophila ruficauda*, 253-254
- Aimophila ruficeps*, 248
 - r. eremoeca*, 240-255
- Aix sponsa*, 425
- Alaska, 652-664, 893-901, 927
- Alberta, 75-87, 435-437
- Alden, Peter, Finding the birds in western Mexico, a guide to the states of Sonora, Sinaloa, and Nayarit (rev.), 194-195
- Ali, Salim, and Laecq Futehally, Common birds (rev.), 199, Common Indian birds, a picture album (rev.), 199-200
- Allin, Albert Ellis, obituary, 225-226
- Amadon, Dean, Obituary: John Treadwell Nichols, 477
- Amazilia cyanocephala*, 679
 - c. guatemalensis*, 679
- American Ornithologists' Union, Amendments, 147-152
- Attendance, 152-153
- Awards, 144-145
- Conservation, Report of the committee on, 902-910
- Editorial matters, 146-147
- Membership, 145-146
- Officers and officials, 144, 159
- Proceedings of the Eighty-eighth Stated Meeting, 144-162
- Resolutions, 157-158
- Treasurer's Report, 160-162
- Ammodramus bairdii*, 567-590
 - savannarum*, 170, 185-186, 240-255, 567-590
- Ammospiza caudacuta*, 567-590
 - maritima*, 567-590
 - mirabilis*, 432, 567-590
 - nigrescens*, 567-590
- Amphispiza bilineata*, 248
- Anas acuta*, 98-107, 438
 - americana*, 666-668
 - penelope*, 666-668
 - platyrhynchos*, 184-185, 186, 674-676
 - rubripes*, 100-107
 - strepera*, 100-107, 184-185
- Anastomus lamelligerus*, 428, 715-722
 - oscitans*, 428, 715-722
- Anatomy of, *Coraciidae*, 723-752
 - Brachypterocidae*, 723-752
 - Leptosomatidae*, 723-755
- Anatomy and embryology, periodical literature on, 202, 455-457, 689-692, 939
- Anderson, Daniel W., and J. F. Kreitzer, Thickness of 1967-69 Whooping Crane eggshells compared to that of pre-1910 specimens, 433-434
- Anderson, Raymond K., Orientation in Prairie Chickens, 286-290
- Andrie, Robert F., and Frances M. Rew, White-throated Sparrow breeding in downtown Buffalo, New York, 172-173
- Ani, Groove-billed, 876-880

INDEX TO VOLUME 88

Compiled by Willetta Lueshen

This index is primarily one to new information. Previously published information referred to in this volume has not been indexed unless extensive comparisons or reinterpretations are involved. For some species, especially ones not in the A. O. U. Checklist area, scientific names only have been entered, and in some instances entries under scientific names are more extensive than those under vernacular names. New generic, specific, and subspecific names are printed in **boldface** type.

- Abnormality, see Deformity
- Accipiter cooperii*, 76, 815-827
 - gentilis*, 660, 815-827
 - striatus*, 617
- Actitis hypoleucos*, 167
 - macularia*, 167-168, 181, 241
- Acryllium vulturinum*, 543-559
- Agelaius phoeniceus*, 30-34, 100-107, 251-253, 436
- Agelaius tricolor*, 30-34
- Agriocharis ocellata*, 543-559
- Aimophila ruficauda*, 253-254
- Aimophila ruficeps*, 248
 - r. eremoeca*, 240-255
- Aix sponsa*, 425
- Alaska, 652-664, 893-901, 927
- Alberta, 75-87, 435-437
- Alden, Peter, Finding the birds in western Mexico, a guide to the states of Sonora, Sinaloa, and Nayarit (rev.), 194-195
- Ali, Salim, and Laecq Futehally, Common birds (rev.), 199, Common Indian birds, a picture album (rev.), 199-200
- Allin, Albert Ellis, obituary, 225-226
- Amadon, Dean, Obituary: John Treadwell Nichols, 477
- Amazilia cyanocephala*, 679
 - c. guatemalensis*, 679
- American Ornithologists' Union, Amendments, 147-152
- Attendance, 152-153
- Awards, 144-145
- Conservation, Report of the committee on, 902-910
- Editorial matters, 146-147
- Membership, 145-146
- Officers and officials, 144, 159
- Proceedings of the Eighty-eighth Stated Meeting, 144-162
- Resolutions, 157-158
- Treasurer's Report, 160-162
- Ammodramus bairdii*, 567-590
 - savannarum*, 170, 185-186, 240-255, 567-590
- Ammospiza caudacuta*, 567-590
 - maritima*, 567-590
 - mirabilis*, 432, 567-590
 - nigrescens*, 567-590
- Amphispiza bilineata*, 248
- Anas acuta*, 98-107, 438
 - americana*, 666-668
 - penelope*, 666-668
 - platyrhynchos*, 184-185, 186, 674-676
 - rubripes*, 100-107
 - strepera*, 100-107, 184-185
- Anastomus lamelligerus*, 428, 715-722
 - oscitans*, 428, 715-722
- Anatomy of, *Coraciidae*, 723-752
 - Brachypterocidae*, 723-752
 - Leptosomatidae*, 723-755
- Anatomy and embryology, periodical literature on, 202, 455-457, 689-692, 939
- Anderson, Daniel W., and J. F. Kreitzer, Thickness of 1967-69 Whooping Crane eggshells compared to that of pre-1910 specimens, 433-434
- Anderson, Raymond K., Orientation in Prairie Chickens, 286-290
- Andrie, Robert F., and Frances M. Rew, White-throated Sparrow breeding in downtown Buffalo, New York, 172-173
- Ani, Groove-billed, 876-880

- Smooth-billed, 876-880
- Anser albifrons, 858
- Antarctica, 366-380
- Antwren, Checker-throated, 881-892
- Dot-winged, 881-892
- White-flanked, 881-892
- Aptenodytes forsteri, 366-380, 775-795
- Aquila chrysaetos, 174, 186
- c. canadensis, 427
- Araçari, Collared, 392
- Araçari, Fiery-billed, 384
- Arbib, Robert, and Tony Soper, The hungry bird (rev.), 937
- Ardea herodias, 100-107, 426, 429
- occidentalis, 668
- Arizona, 929
- Arnold, John R., see Tyler, Hamilton A., and —
- Arremonops rufivirgata, 252
- Atelornis crossleyi, 724-755
- pittoides, 724-755
- Aulacorhynchus caeruleogularis, 381-396
- Austin, Elizabeth S., review by, 201, 453-454, 684-685, 687, 937, 938
- Aythya affinis, 184-185
- americana, 114
- Bailey, Harold Harris, obituary, 225
- Bananaquit, 291-322, 323-342
- Bancroft, Griffing, Northern breeding record for Reddish Egret, 429
- Banks, Richard C., Publication dates of the North American Fauna series, 676, see American Ornithologists' Union, Proceedings of the Eighty-eighth Stated Meeting
- Barash, David P., review by, 934-935
- Barnes, Claude T., obituary, 479-480
- Bartsch, Paul, obituary, 959-961
- Basileuterus fulvicauda, 17
- Baskett, Thomas S., see Goforth, W. Reid, and —
- Baysinger, Earl B., A documented instance of reverse migration in the Pintail, 438
- Beck, Herbert Huebner, obituary, 710-711
- Behavior, aggressive, 50, 77-87, 289, 529
- balancing, 716-722
- begging, 918
- bill-sweeping, 175-176
- brooding, 13
- chasing, 186, 529, 914
- colonization, 53-60, 178
- cooling, 716-722
- copulation, 136, 176, 178, 289, 661, 834-855, 914
- courtship, 21-29, 176-177, 438-440
- courtship feeding, 21-29, 543-559
- dabbling, 21-29
- defensive, 50-51, 533-542
- diving, 775-795
- drumming, 176-177, 658-664
- display, 176-177, 543-569, 654, pendulum, 174
- egg dumping, 185-186
- feather-drying, 716-722
- feather treatment, 716-722
- flocking, 881-892
- flutter jumping, 654
- lifting, 431
- nest advertisement, 127-143
- pawing, 914
- pecking, 529-542, 914
- periodical literature on, 202-203, 455-457, 689-692, 939-941
- preening, 7, 370
- prolapse, 173-174
- roosting, 167-168
- shading, 716-722
- shivering, 782-795
- social, 26, 528-542, 786, display, 716-722
- spread-wing posture, 715-722
- striking, 529, 815-827
- strutting, 654
- swimming, 427, 775-795
- tail flicking, 654
- threat posturing, 529
- tidbitting, 21-29
- warming, 716-722
- wing-flicking, 6
- Behavior of,
- Actitis macularia, 167-168
- Agelaius phoeniceus, 30-34
- Ammodramus savannarum, 185-186
- Anas platyrhynchos, 184-185, 186
- A. strepera, 184-185
- Anastomus lamelligerus, 715-722
- A. oscitans, 715-722
- Aptenodytes forsteri, 775-795

- Aquila chrysaetos*, 186
A. chrysaetos canadensis, 427
Ardea occidentalis, 668
Aythya affinis, 184-185
Bonasa umbellus, 176-177
Bubo virginianus, 426-427, 613-634
Buteo jamaicensis, 77-78
Cacicus cela, 178
C. haemorrhous, 178
Canachites canadensis, 652-664
Catherpes mexicanus, 677
Ciconia ciconia, 715-722
Chaetura pelagica, 177
Corvus brachyrhynchos, 426, 613-634
Dichromanassa rufescens, 429
Dissoura episcopus, 715-722
Galliformes, 543-559
Gallinula chloropus cachinnans, 914-919
Gallus gallus, 21-29
Hirundo rustica erythrogaster, 839-855
Ibis cinereus, 715-722
Ibis ibis, 715-722
I. leucocephalus, 715-722
Iridoprocne albilinea, 635-651
Larus argentatus, 426-427, 438-440
L. delawarensis, 438-440
L. marinus, 426-427
Leptodon cayanensis, 165-166
Leptoptilos crumeniferus, 715-722
L. dubius, 715-722
L. javanicus, 715-722
Megaceryle torquata, 665-666
Mergus serrator, 184-185
Molothrus ater, 560-566
Mycteria americana, 715-722
Numenius americanus, 182-184
Nuttallornis borealis, 174
Nycticorax nycticorax, 435-437
Petrochelidon p. pyrrhonota, 839-855
Phalacrocorax auritus, 426-427
Ploceus cucullatus, 124-243
Pygoscelis adeliae, 370-380
Ramphastos sulphuratus, 381-396
Sitta carolinensis, 175-176
Somateria mollissima, 426-427
Sphenorhynchus abdimii, 715-722
Spiza americana, 591-612
Stellura calliope, 431
Tympanuchus cupido pinnatus, 286-290
Xenorhynchus asiaticus, 715-722
Zeledonia coronata, 5-20
Zenaidura macroura, 256-263, 528-542
Zonotrichia albicollis, 172-173
Zosterops borbonica, 38-60
Z. olivacea, 38-60
- Behle, William H., In memoriam: Jean Myron Linsdale, 761-774, Obituary: Claude T. Barnes, 479-480, Obituary: Paul Bartsch, 959-961, Obituary: Alfred Brazier Howell, 224-225, Obituary: William J. Sheffler, 227-228
 Bellrose, Frank C., The distribution of nocturnal migrants in the air space, 397-424
 Biology, general, periodical literature on, 212-215, 466-470, 699-702, 951-955
 Blackbird, European, 919-920
 Redwinged, 30-34, 100-107, 251-253
 Tricolored, 30-34
 Yellow-headed, 677-678
 Blain, Alexander William, obituary, 961
 Blake, Emmet R., A new species of spine-tail (*Synallaxis*) from Peru, 179
 Blood sampling technique, 169-171
 Bluebird, Mountain, 244
 Boag, David A., see Wolford, James W., and —
 Bobwhite, 116, 264-265, 323-342
 Crested, 927
 Bock, Carl E., Pairing in hybrid flicker populations in eastern Colorado, 921-924
 Bock, Walter, review by, 443-444, 680-682
Bombycilla cedrorum, 323-342, 926
Bonasa umbellus, 176-177
 Bond, Mary Wickham, far afield in the caribbean (rev.), 938
 Boyd, John C., and William J. L. Sladen, Telemetry studies of the internal body temperatures of Adélie and Emperor Penguins at Cape Crozier, Ross Island, Antarctica, 366-380
Brachypteracias leptosomus, 724-755
 Brackbill, Hervey, Herring and Ring-billed Gulls paired or courting in Maryland in January and February, 438-440
Branta canadensis, 98-107
 Breckenridge, Walter J., Obituary: Francis Lee Jaques, 478-479

- Breeding (see also Behavior, Clutch size, Incubation, Nest and nest site, Nesting success), *Buteo jamaicensis*, 78-87
- Cacicus cela*, 178
- C. haemorrhous*, 178
- Caprimulgus carolinensis*, 485-519
- Catharacta maccormicki*, 805-814
- Gallinula chloropus cachinnans*, 914-919
- Gallus gallus*, 24-29
- Hirundo rustica erythrogaster*, 839-855
- Iridoprocne albilinea*, 637
- Mergus serrator*, 184-185
- Numenius americanus*, 182-184
- Petrochelidon p. pyrrhonota*, 839-855
- Ploceus cucullatus*, 134-143
- Pygoscelis adeliae*, 366
- Ramphastos sulphuratus*, 385-396
- Serinus koliensis*, 911-914
- Zeledonia coronata*, 8-20
- Britton, P. L., Two sympatric canaries, *Serinus koliensis* and *citrinelloides*, in western Kenya, 911-914
- Brown, Maurice, House Sparrows feeding young at night, 924-925
- Bubo virginianus*, 75-87, 174, 426-427, 614-634
- Bubulcus ibis*, 181, 669-670, 876
- Bunting, Indigo, 323-342
- Lark, 247-248
- Lazuli, 247
- Burton, Jean, see McNeil, Raymond, and —
- Bush-tanager, Sooty-capped, 7
- Buteo jamaicensis*, 75-87, 615, 699-670, 815-827
- magnirostris*, 174
- nitidus*, 174
- platypterus*, 76, 174
- Cacicus cela*, 178
- haemorrhous*, 178
- Cacique, Mexican, 252-253
- Red-rumped, 178
- Yellow-rumped, 178
- Calamospiza melanocorys*, 247-248
- Calcaricus ornatus*, 240-255
- Calidris alpina*, 893-901, 927
- alpina arctica*, 893-901
- a. hudsonia*, 893-901
- a. pacifica*, 893-901
- a. sakhalina*, 893-901, 927
- California, 174, 438, 543-559, 668-669, 924
- Callipepla squamata*, 264-275, 543-559
- Campbell, Jr., Kenneth E., First report of Sandwich Terns in Peru, 676
- Campbell, W. B., see Kooyman, G. L., C. M. Drabeck, R. Elsner, and —
- Campylorhynchus jocosus*, 240-255
- rufinucha*, 252
- r. humilis*, 251
- Canachites canadensis*, 652-664
- Canary, Papyrus, 911-914
- Caprimulgus carolinensis*, 485-519
- Cardinal, 253
- Cardinella rubrifrons*, 17
- Carpodacus purpureus*, 240-255
- Carthartes aura*, 624
- Cartwright, Bertram William, obituary, 226-227
- Casmerodius albus*, 100-107, 429
- Cassidix mexicanus*, 100-107
- Catbird, 170
- Catharacta maccormicki*, 805-814
- skua lonnbergi*, 805-814
- Catherpes mexicanus*, 677
- Census method, see Population density, measurement of
- Chaetura pelagica*, 177
- Chamberlain, Dwight R., and George W. Cornwell, Selected vocalizations of the Common Crow, 613-634
- Charadrius vociferus*, 171
- Chen h. hyperborea, 856-875
- rossii*, 856-875
- r. × h. hyperborea*, 856-875
- Chickadee, Black-capped, 323-342
- Chicken, Prairie, 286-290
- Chile, 670-671
- Chlorophanes spiza*, 291-322
- Chlorospingus pileatus*, 7
- Chlorospiza bicolor*, 323-342
- Chondestes grammacus*, 240-255
- Chrysolophus amherstiae*, 543-559
- pictus*, 543-559
- Chuck-will's-widow, 485-519
- Ciconia ciconia*, 428, 715-722
- nigra*, 428

- Clark, Richard J., Wing-loading—a plea for consistency in usage, 927–928
- Clutch size, *Agelaius phoeniceus*, 31–34
- Buteo jamaicensis*, 78
- Dichromanassa rufescens*, 429
- Gallinula chloropus cachinnans*, 915
- Passerculus sandwichensis*, 185–186
- Rhinoptynx clamator*, 178
- Coccyzus americanus*, 181, 241–242
- erythrophthalmus*, 242, 323–342
- Coereba flaveola*, 291–322, 323–342
- Colaptes auratus*, 921–924
- cafer, 921–924
- Colinus cristatus*, 927
- virginianus, 116–123, 264–275, 323–342
- Collias, Elsie C., see Collias, Nicholas E., and —
- Collias, Nicholas E., and Elsie C. Collias, Some observations on behavioral energetics in the Village Weaverbird. I. Comparison of colonies from two species in nature, 124–133, Janice K. Victoria, Ellen L. Coutlee, and Martin Graham, Some observations on behavioral energetics in the Village Weaverbird. II. All-day watches in an aviary, 133–143
- Colombia, 926
- Colorado, 182–184, 921–924
- Columba livia*, 816
- Columbigallina passerina*, 323–342
- Congo, 130
- Contopus, 926
- caribaeus, 323–342
- sordidulus, 240–255
- s. saturatus, 240–255
- s. veliei, 240–255
- virens, 61–74, 323–342, 796–804
- Conservation (see also Management and —), Report of the committee on, G. J. Wallace, Chairman, 902–910
- Coot, American, 108–115, 436, 914–916
- Coracias benghalensis*, 724–755
- caudata, 724–755
- garrulus, 724–755
- Coragyps atratus*, 672–673
- Cormorant, Double-crested, 426–427, 429
- Cornwell, George W., see Chamberlain, Dwight W., and —
- Corvus brachyrhynchos*, 98–107, 323–342, 426, 613–634
- b. brachyrhynchos, 240–255
- b. pascuus, 626–632
- ossifragus, 615–632
- Costa Rica, 1–20, 163–166, 381–396, 876–880
- Coturnix coromandelica*, 543–559
- coturnix, 543–559
- Courser, William D., and James J. Dinsmore, Red-tailed Hawk preys on Cattle Egret, 669–670
- Coutlee, Ellen L., and Martin Graham, see Collias, Nicholas E., Janice K. Victoria, —
- Cowbird, Bronzed, 239–255
- Brown-headed, 239–255, 323–342, 560–566, 876
- Shiny, 239–355
- Cracraft, Joel, The relationships and evolution of the Rollers: Families Coraciidae, Brachypteraciidae, and Leptosomatidae, 723–752
- Crane, Whooping, 433–434
- Crossbill, Red, 828–838
- Crossoptilon auritum*, 543–559
- mantchuricum, 543–559
- Crotophaga ani*, 876–880
- sulcirostris, 876–880
- Crow, Common, 98–107, 243, 323–342, 426, 613–634
- Fish, 615–632
- Cuckoo, Black-billed, 242, 323–342
- Yellow-billed, 181, 241–242
- Curassow, Salvin's, 543–559
- Curlew, Long-billed, 182–184
- Cyanerpes caeruleus*, 291–322
- cyaneus, 291–322
- Cyanocitta cristata*, 323–342, 632
- Cyanomyia microrhyncha*, 679
- Cyrtonyx montezumae*, 543–559
- Dacnis cayana*, 291–322
- Darley, James A., Sex ratio and mortality in the Brown-headed Cowbird, 560–566
- Davis, Betty, Audubon's Warbler in North Carolina, 924
- Davis, Malcolm, obituary, 962–963

- Davis, Rolph A., Flight speed of Arctic and Red-throated Loons, 169
- Davis, W. Marvin, A specimen of the Little Gull from northern Mississippi, 437-438
- Davis, William A., Birds in western Colorado (rev.), 201
- Deformity, *Larus californicus*, 435
- Milvus migrans* govinda, 166
- X. xanthocephalus*, 436
- Dendrocopus villosus*, 323-342
- auduboni auduboni*, 924
- Dendroica caerulescens*, 180
- coronata*, 240-255, 323-342
- dominica*, 323-342
- occidentalis*, 246
- palmarum*, 323-342
- pinus*, 323-342
- pityophila*, 323-342
- virens*, 323-342
- Dennis, John V., review by, 447-449
- de Schauensee, Rodolphe Meyer, A guide to the birds of South America (rev.), 930-932
- Dichromanassa rufescens*, 429
- Dickcissel, 247, 591-612
- Diem, Kenneth L., see Smith, Jean, and —
- Dinsmore, James J., see Courser, William D., and —
- Diseases and parasites (see also Parasitism), periodical literature on, 203, 437-458, 692-693, 941
- Dissoura episcopus*, 428, 715-722
- Distribution (see also Population, Population density), 397-424
- Distribution of,
- Actitis macularia*, 181
- Ammospiza mirabilis*, 432
- Bubulcus ibis*, 181
- Charadrius vociferus*, 171
- Chen h. hyperborea*, 862-875
- Chen rossii*, 862-875
- Coccyzus americanus*, 181
- Dendroica a. auduboni*, 924
- Dendroica caerulescens*, 180
- Dichromanassa rufescens*, 429
- Empidonax traillii*, 429-431
- Gavia arctica*, 175
- Geothlypis trichas*, 180
- Himantopus mexicanus*, 181
- Hirundo rustica*, 181
- Hydrobates pelagicus*, 671-672
- Larus heermanni*, 929
- L. minutus*, 437-438
- L. pipixcan*, 670-671
- Megaceryle alcyon*, 181
- M. torquata*, 665-666
- Melanerpes herminieri*, 180
- Mimus gilvus*, 180-181
- Pauxi unicornis koepeckae**, 233-238
- Pluvialis dominica*, 181
- Puffinus gravis*, 440-442
- Quiscalus lugubris*, 181
- Riparia riparia*, 180
- Sicalis luteola*, 181
- Sterna anaethetus*, 670-671
- Synallaxis courseni**, 179
- Thalasseus sandvicensis*, 676
- Thryomanes bewickii*, 168
- Tyrannus dominicensis*, 181-182
- Turdus merula*, 919-920
- Zonotrichia albicollis*, 172-173
- Zosterops borbonica*, 38-60
- Z. olivacea*, 35-60
- Distribution and annotated lists, periodical literature on, 203-208, 458-460, 693-695, 941-946
- Dos Passos, John, Easter Island/island of enigmas (rev.), 938
- Dove, Ground, 323-342
- Mourning, 241-252, 256-263, 323-342, 528-542, 924
- Rock, 816
- Zenaida, 323-342
- Drabek, C. M., R. Elsner, and W. B. Campbell, see Kooyman, G. L., —
- Duck, Black, 100-107
- Ruddy, 114, 916
- Wood, 425
- Dumetella carolinensis*, 170
- Dunham, D. W., Interspecific cacique colonies in Surinam, 178
- Dunlin, 893-901, 927
- Dunning, John S., Portrait of tropical birds (rev.), 935-936
- Dzubin, Alex, and John P. Ryder, see Trauger, David L., —
- Eagle, Bald, 928-929
- Golden, 174, 186, 427

- Easterla, David A., and Floyd Lawhon, First specimen of Arctic Loon from Missouri, 175, and James M. Todd, Bill deformity of a Yellow-headed Blackbird, 677-678
- Ecology and population (see also population), periodical literature on, 209-211, 460-464, 695-698, 946-949
- Eibl-Eibesfeldt, Irenaus, Ethology: the biology of behavior (rev.), 934-935
- Eider, Common, 426-427
- Eggs, description and measurements, *Galinula chloropus cachinnans*, 916
Grus americana (shell thickness), 433-434
Ramphastos sulphuratus, 386
Serinus koliensis, 911-914
Zeledonia coronata, 11-20
- Egg production, *Agelaius phoeniceus*, 30-34
Anas platyrhynchos, 184-185
A. strepera, 184-185
Aythya affinis, 184-185
Mergus serrator, 184
Numenius americanus, 182-184
Tytonidae \times *Strigidae*, 178
- Egret, Cattle, 181, 669-670, 876
 Common, 100-107, 429
 Reddish, 429
 Snowy, 98-107, 429
- Ellison, Laurence N., Territoriality in Alaskan Spruce Grouse, 652-664
- Elsner, R., and W. B. Campbell, see Kooyman, G. L., C. M. Drabek, —
- Embryology, see Anatomy and —
- Emlen, John T., Population densities of birds derived from transect counts, 323-342
- Emlen, Stephen T., review by, 198-199
- Empidonax*, 926
difficilis, 240-255
flaviventris, 61-74
minimus, 61-74, 323-342, 796-804
oberholseri, 240-255
traillii, 61-74, 429-431
virescens, 61-74, 797
- Energetics, behavioral, 124-243
 flight, 97-107
- Ephippiorhynchus senegalensis*, 423
- Eremophila alpestris*, 240-255
- Escalante, Rodolfo, Aves marinas del Río de la Plata y aguas vecinas del Océano Atlántico (Seabirds of the Río de la Plata and adjacent waters of the Atlantic Ocean) (rev.), 454
- Euphonia trinitatis*, 291-322
violacea, 291-322
- Eurystomus glaucurus*, 724-755
gularis, 724-755
- Eurystomus orientalis*, 724-755
- Euxenura galeata*, 428
- Evolution, *Brachypteraciidae*, 723-752
Coraciidae, 723-752
Leptosomatidae, 723-752
- Evolution and genetics, periodical literature on, 211-212, 464-466, 698-699, 949-951
- Excalfactoria chinensis*, 543-559
- Falco mexicanus*, 815-827
peregrinus, 815-827
sparverius, 98-107, 815-827
- Falcon, Peregrine, 815-827
 Prairie, 815-827
- Finch, Purple, 247
 Warbling, 251
- Fireback, Siamese, 543-559
- Fitzgerald, Theodore, The Coturnix Quail: anatomy and histology (rev.), 443-444
- Flieg, G. Michael, *Tytonidae* \times *Strigidae* cross produces fertile eggs, 178, Vestigial erectile crest in *Ficathartes*, 442
- Flight, attack and strike, *Accipiter cooperii*, 815-827
A. gentilis, 815-827
Buteo jamaicensis, 815-827
Falco mexicanus, 815-827
F. peregrinus, 815-827
F. sparverius, 815-827
- Flight, flapping rate, *Anastomus lamelligerus*, 428
A. oscitans, 428
Ciconia ciconia, 428
C. nigra, 428
Dissoura episcopus, 428
Ephippiorhynchus senegalensis, 428
Euxenura galeata, 428
Ibis cinereus, 428
I. ibis, 428

- I. leucocephalus*, 428
Jabiru mycteria, 428
Leptoptilos crumeniferus, 428
L. dubius, 428
L. javanicus, 428
Mycteria americana, 428
Sphenorhynchus abdimii, 428
Xenorhynchus asiaticus, 428
 Flight, speed of, *Agelaius phoeniceus*, 100-107
Anas acuta, 98-107
A. rubripes, 100-107
A. strepera, 100-107
Ardea herodias, 100-107
Branta canadensis, 98-107
Casmerodius albus, 100-107
Cassidix mexicanus, 100-107
Corvus brachyrhynchos, 98-107
Falco sparverius, 98-107
Florida caerulea, 100-107
Gavia arctica, 169
G. stellata, 169
Hydroprogne caspia, 100-107
Hydranassa tricolor, 100-107
Larus argentatus, 100-107
L. atricilla, 98-107
Leucophoyx thula, 98-107
Mareca americana, 98-107
Quiscalus quiscula, 100-107
Squatarola squatarola, 100-107
Thalasseus maximus, 100-107
 Florida, 429, 432, 668
 Florida caerulea, 100-107
 Flycatcher, Acadian, 61-74, 797
 Crested, 796-804
 Dusky, 242
 Great Crested, 61-74, 323-342
 Kiskadee, 250
 Least, 61-74, 323-342, 796-804
 Loggerhead, 323-342
 Olive-sided, 61-74, 174
 Royal, 383-384
 Rusty-margined, 649
 Stolid, 323-342
 Traill's, 61-74, 429-431
 Vermillion, 242
 Western, 242
 Yellow-bellied, 61-74
 Fogarty, Michael J., review by, 686
 Food and feeding habits, *Actitis macularia*, 167-168
Aquila chrysaetos canadensis, 427
Bubo virginianus, 426-427
Calidris alpina, 897-903
Catherpes mexicanus, 677
Chaetura pelagica, 177
Chlorophanes spiza, 291-322
Coereba flaveola, 291-322
Contopus virens, 796-804
Coragyps atratus, 672-673
Crotophaga ani, 876-880
C. sulcirostris, 876-880
Cyanerpes caeruleus, 291-322
C. cyaneus, 291-322
Dacnis cayana, 291-322
Empidonax minimus, 796-804
Euphonia trinitatis, 291-322
E. violacea, 291-322
Galliformes, 543-559
Gallinula chloropus cachinnans, 914
Gallus gallus, 21-29
Haliaeetus leucocephalus, 928-929
Iridoprocne albilinea, 635-651
Megasceryle torquata, 665-666
Microrhopias quixensis, 882-892
Myiarchus crinitus, 796-804
Myiozetes cayensis, 649
Myrmotherula axillaris, 882-892
M. fulviventeris, 882-892
Nycticorax nycticorax, 435-437
Passer domesticus, 924-925
Ploceus cucullatus, 129-143
Ramphastos surphuratus, 383-396
Ramphocelus carbo, 291-322
Sayornis phoebe, 796-804
Serinus citrinelloides brittoni, 911-914
S. koliensis, 911-914
Tachyphonus luctuosus, 291-322
T. rufus, 291-322
Tangara guttata, 291-322
T. gyrola, 291-322
T. mexicana, 291-322
Thraupis episcopus, 291-322
T. palmarum, 291-322
Tyrannus melancholicus, 647
T. tyrannus, 796-804, 925-926
Zeledonia coronata, 5-20
Zenaidura macroura, 256-263
Zonotrichia albicollis, 172-173

- Zosterops borbonica*, 46-60
Z. olivacea, 46-60
 Forshaw, Joseph M., Australian parrots (rev.), 452-453
 Foster, Mercedes S., Plumage and behavior of a juvenile Gray-headed Kite, 163-166
 Fowl, Ceylon Jungle, 543-559
 Gray Jungle, 543-559
 Green Jungle, 543-559
 Guinea Bare-headed Rock, 442
 Red Jungle, 21-29, 543-559
 Bare-throated, 543-559
 Francolin, Black, 543-559
 Erckel's, 543-559
 Gray, 543-559
 Humboldt, 543-559
 Sharp's, 543-559
 Francolinus clappertoni, 543-559
 erckelii, 543-559
 francolinus, 543-559
 pondicereanus, 543-559
 Fredrickson, Leigh H., Common Gallinule breeding biology and development, 914-919
 Friedmann, Herbert, Further information on the host relations of the parasitic cowbirds, 239-255, review by, 682-684
Fulica americana, 108-115, 436, 914-916

 Gadwall, 100-107, 184-185
 Gallinule, Common, 914-919
Gallinula chloropus cachinnans, 914-919
Galloperdix bicalcarata, 543-559
 spadicea, 543-559
Gallus gallus, 21-29
 lafayettei, 543-559
 sonnerati, 543-559
 varius, 543-559
 Gauthreaux, Sidney A., Jr., A radar and direct visual study of passerine spring migration in southern Louisiana, 343-365
Gavia arctica, 169, 175
 immer, 175
 stellata, 169
 Genetics, see Evolution and —
 George, William G., Foliage-gleaning by Chimney Swifts (*Chaetura pelagica*), 177, review by, 195-197
Goethlypis rostrata, 323-342
 trichas, 180, 323-342
 Gilbert, Douglas L., Natural resources and public relations (rev.), 937
 Giles, Robert H., Wildlife management techniques (rev.), 200
 Gill, Frank B., Ecology and evaluation of the sympatric Mascarene White-eyes, *Zosterops borbonica* and *Zosterops olivacea*, 35-60, review by, 190-192
 Gladfelter, H. Lee, and R. Scott McBurney, Mating activity of Ruffed Grouse, 176-177
 Gnatcatcher, Black-tailed, 244
 Blue-gray, 244, 323-342
 Van Rossem's White-lored, 252
 White-lored, 244-245
 Gochfeld, Michael, Notes on a nocturnal roost of Spotted Sandpipers in Trinidad, West Indies, 167-168
 Godfrey, W. Earl, Obituary: Albert Ellis Allin, 225-226
 Goforth, W. Reid, and Thomas S. Baskett, Effects of colored backgrounds on food selection by penned Mourning Doves (*Zenaidura macroura*), 256-263, Social organization of penned Mourning Doves, 528-542
 Goldfinch, American, 323-342
 Gorski, Leon J., Traill's Flycatchers of the "fee-bee-o" song-form wintering in Peru, 429-431
 Goshawk, 660, 815-827
 Goose, Canada, 98-107
 Lesser Snow, 856-875
 Ross', 856-875
 White-fronted, 858
 Goslow, Jr., George E., The attack and strike of some North American raptors, 815-827
 Grackle, Boat-tailed, 100-107
 Carib, 181
 Common, 100-107, 170, 632
 Graham, Martin, see Collias, Nicholas E., Janice K. Victoria, Ellen L. Coutlee, and —
 Grassquit, Black-faced, 323-342

- Graul, Walter D., Observations at a Long-billed Curlew nest, 182-184
- Gray, Peter, editor, The encyclopedia of the biological sciences (rev.), 451-452
- Greenlaw, Jon S., see Utter, James M., Eugene A. LeFebvre, and —
- Grosbeak, Black-headed, 247
- Blue, 247
- Rose-breasted, 323-342
- Gross, Alfred Otto, memoriam, photograph of, 520-527, publications, 527
- Grouse, Ruffed, 176-177
- Spruce, 652-664
- Grubb, Thomas C., Jr., Bald Eagles stealing fish from Common Mergansers, 928-929
- Grus americana, 433-434
- Guadeloupe, 180-182
- Guineafowl, Crested, 543-559
- Helmeted, 543-559
- Vulturine, 543-559
- Guiraca caerulea, 247
- Gull, Andean, 670
- Bonaparte's, 437-438, 929
- Brown-headed, 670
- California, 435, 929
- Franklin's, 436, 670-671
- Great Black-backed, 426-427
- Heermann's, 929
- Herring, 100-107, 426-427, 438-440
- Laughing, 98-107
- Little, 437-438
- Ring-billed, 438-440, 929
- Guth, Robert W., New bird records from Guadeloupe and its dependencies, 180-182
- Guttera edouardi, 543-559
- Gymnomystax mexicanus, 251
- Habitat,
- Canachites canadensis, 652-664
- Contopus virens, 61-74, 796-804
- Empidonax flaviventris, 61-74
- E. minimus, 61-74, 796-804
- E. traillii, 61-74
- E. virescens, 61-74
- Gallinula chloropus cachinnans, 916
- Microrhopias quixensis, 882-892
- Myiarchus crinitus, 61-74, 796-804
- Myrmotherula axillaris, 882-892
- M. fulviventris, 882-892
- Numenius americanus, 182-184
- Nuttallornis borealis, 61-74
- Pauxi unicornis koepekeae**, 237
- Ramphastos sulphuratus, 381-396
- Sayornis phoebe, 61-74, 796-804
- Spiza americana, 591-612
- Tympanuchus cupido pinnatus, 286-290
- Tyrannus dominicensis, 61-74
- T. tyrannus, 61-74, 796-804
- Zeledonia coronata, 2-20
- Zosterops borbonica, 35-60
- Z. olivacea, 35-60
- Haliaeetus leucocephalus, 928-929
- Hall, B. P., and R. E. Moreau, An atlas of speciation in African passerine birds (rev.), 682-684
- Halle, Louis J., The Storm Petrel and the owl of Athena (rev.), 687
- Hamerstrom, Frances, and John L. Skinner, Cloacal sexing of raptors, 173-174
- Hann, Harry Wilbur, obituary, 961-962
- Hardy, John William, editor of reviews, 187-201, 443-454, 680-687, 930-938, review by, 200-201, 451-452, 685-686, 935-936, 937, 938
- Hargrave, Lyndon L., Mexican macaws, comparative osteology and survey of remains from the Southwest (rev.), 686-687
- Harrison, James M., D. S. C., Bristow and the Hastings Rarities affair (rev.), 687
- Hatching success, Buteo jamaicensis, 81-87
- Hawk, Broad-winged, 76, 174
- Cooper's, 76, 815-827
- Gray, 174
- Harris', 174
- Red-tailed, 75-87, 615, 669-670, 815-827
- Roadside, 174
- Sharp-shinned, 617
- Sparrow, 98-107, 815-827
- Hebard, Frederick Vanuxem, obituary, 480
- Heron, Black-crowned Night, 429, 435-437
- Great Blue, 100-107, 426, 429
- Great White, 668
- Little Blue, 100-107
- Louisiana, 100-107, 429

- Hertlein, Leo G., see Orr, Robert T., and —
- Hespendeide, Henry A., Flycatcher habitat selection in eastern deciduous forest, 61-74
- Hickman, Gary L., Escape responses and swimming abilities of nestling Golden Eagles, 427
- Himantopus mexicanus, 181, 668
- Hinde, R. A., editor Bird vocalizations. Their relations to current problems in biology and psychology. Essays presented to W. H. Thorpe (rev.), 187-190
- Hindwood, Keith, A portfolio of Australian birds (rev.), 453
- Hirundo rustica, 180-181, 240-255
r. erythrogaster, 240-255, 839-855
- Höhn, E. O., Attempted hormonal induction of brood patches and broodiness in ducks, 674-676
- Holcomb, Larry C., Nest building and egg laying by Redwinged Blackbirds in response to artificial manipulations, 30-34
- Holmes, Richard T., see MacLean, Jr., Stephen F., and —
- Honduras, 927
- Honeycreeper, Blue Dacnis, 291-322
Green, 291-322
Purple, 291-322
Red-legged, 291-322
- Howard, Hildegard, In memoriam: Loye Holmes Miller, 277-285
- Howell, Alfred Brazier, obituary, 224-225
- Howe, Paul Griswold, Photographer in the rain-forests (rev.), 687
- Hubbard, John P., Comparison of two presumed European \times American Widgeon hybrids, 666-668, Obituary: Harold Harris Bailey, 225, Checklist of the birds of New Mexico (rev.), 936-937
- Huber, Lawrence N., First records of Heermann's Gull (*Larus heermanni*) for Arizona, 929
- Hummingbird, Calliope, 431
Cuban Emerald, 323-342
- Humphrey, Philip S., review by, 454
- Hunt, James H., A field study of the Wrenthrush, *Zeledonia coronata*, 1-20
- Hybrids and hybridization, *Anas penelope* \times *A. americana*, 666-668
Chen rossii \times *Chen h. hyperborea*, 856-875
Colaptes auratus \times *C. cafer*, 921-924
Odontophorinae, 264-275
Tytonidae \times *Strigidae*, 178
- Hydranassa tricolor, 100-107, 429
- Hydrobates pelagicus, 671-672
- Hydroprogne caspia, 100-107
- Hylocichla fuscescens, 323-342
guttata, 323-342
- Ibis cinereus, 428, 715-722
ibis, 428, 715-722
leucocephalus, 428, 715-722
- Icterus cucullatus, 252
graduacauda, 252
gularis, 253
g. gularis, 251
pustulatus, 246-253
p. pustulatus, 240-255
p. formosus, 251
spurius, 251-252
- Idaho, 427
- Illinois, 177, 116-123
- Incubation period (see also Breeding, Hatching success), *Gallinula chloropus cachinnans*, 916
Numenius americanus, 184
Ramphastos sulphuratus, 387-396
- India, 166
- Iowa, 109-115, 176-177, 914-919
- Iridoprocne albilinea, 635-651
bicolor, 240-255, 635-651
- Jabiru mycteria, 428
- Jaques, Francis Lee, obituary, 478-479
- Jay, Blue, 323-342, 632
- Johnsgard, Paul A., Experimental hybridization of the New World quail (*Odontophorinae*), 264-275
- Johnson, H. McClure, see Olson, Clark S., and —
- Johnston, David W., Niche relationships among some deciduous forest flycatchers, 796-804

- Junco, Oregon, 248
Slate-colored, 170
Junco hyemalis, 170
oreganus, 248
o. thurberi, 240-255
- Kahl, M. P., Flapping rates of storks in level flight, 428, Spreadwing postures and their possible functions in the Ciconiidae, 715-722
- Kansas, 591-612
- Keith, Lloyd B., and J. D. Stephenson, see Luttich, Stuart N., and —
- Kelleher, James V., and William F. O'Malia, Golden Eagle attacks a Mallard, 186
- Kemsies, Emerson, obituary, 712
- Kendeigh, S. Charles, review by, 685
- Kenya, 911-914
- Kepler, Cameron B., Breeding biology of the Blue-faced Booby *Sula dactylatra personata* on Green Island, Kure Atoll (rev.), 449-451
- Kilham, Lawrence, Use of blister beetle in bill-sweeping by White-breasted Nuthatch, 175-176
- Killdeer, 171
- Kingbird, Eastern, 61-74, 796-804, 925-926
Gray, 61-74, 181
Tropical, 647-649
- Kingfisher, Belted, 181
Ringed, 665-666
- Kinglet, Golden-crowned, 245
Ruby-crowned, 245
Gray-headed, 163-166
- Kite, Pariah, 166
- Klemm, Robert D., Comparative myology of the hind limb of procellariiform birds (rev.), 680-682
- Klimstra, W. D., see Roseberry, John L., and —, review by, 198
- Kooyman, G. L., C. M. Drabek, R. Elsner, and W. B. Campbell, Diving behavior of the Emperor Penguin, *Aptenodytes forsteri*, 775-795
- Kreitzer, J. F., see Anderson, Daniel W., and —
- Krutch, Joseph Wood, The best nature writing of Joseph Wood Krutch (rev.), 201
- Lansdowne, James Fenwick, and John A. Livingston, Birds of the eastern forest: 2 (rev.), 444-447
- Lapham, Elise, First Rhode Island record of Bewick's Wren, 168
- Lark, Horned, 242-243
- Larus argentatus, 100-107, 426-427, 438-440
atricilla, 98-107
californicus, 435, 929
delawarensis, 438-440, 929
heermanni, 929
maculipennis, 670
marinus, 426-427
minutus, 437-438
philadelphia, 437-438, 929
pipixcan, 436, 670-671
serranus, 670
- Lawhon, Floyd, see Easterla, David A., and —
- LeFebvre, Eugene A., and Jon S. Greenlaw, see Utter, James M., —
- Leptodon cayanensis, 163-166
- Leptoptilos crumeniferus, 428, 715-722
dubius, 428, 715-722
javanicus, 428, 715-722
discolor, 724-755
- Leucophoyx thula, 98-107, 429
- Ligon, James Stokley, obituary, 708-710, photograph of, 708
- Limnolophus swainsonii, 240-255
- Linsdale, Jean Myron, bibliography, 773-774, memoriam, 760-774, photograph of, 760
- Longspur, Chestnut-collared, 249
- Loon, Arctic, 169, 175
Common, 175
Red-throated, 169
- Lophortyx californica, 264-275
douglasii, 264-275
gambelii, 264-275
- Lophura diardi, 543-559
edwardsi, 543-559
nychthemera, 543-559
swinhoei, 543-559
- Louisiana, 343-365

- Loxia curvirostra*, 828-838
- Lucas, Joseph, editor, International zoo yearbook, vol. 10 (rev.), 685-686
- Luttich, Stuart N., Lloyd B. Keith, and J. D. Stephenson, Population dynamics of the Red-tailed Hawk (*Buteo jamaicensis*) at Rochester, Alberta, 75-87
- MacLean, Jr., Stephen F., and Richard T. Holmes, Bill lengths, wintering areas, and taxonomy of North American Dunlins, *Calidris alpina*, 893-901
- Maine, 426-427
- Mallard, 184-185, 186, 674-676
- Management and conservation, periodical literature on, 215, 470, 702-703, 955
- Manville, Richard H., Obituary: Malcolm Davis, 962-963
- Mareca americana*, 98-107
- Martin, Robert F., The Canon Wren (*Catherpes mexicanus*) raiding food storage of a trypoxylid wasp, 677
- Maryland, 438-440
- Mauritius Island, 35-60
- Mayr, Ernst, Principles of systematic zoology (rev.), 190-192
- McBurney, R. Scott, see Gladfelter, H. Lee, and —
- McGrew, Albert D., Nesting of the Ringed Kingfisher in the United States, 665-666
- McNeil, Raymond, European Blackbird (*Turdus merula*) in Quebec, 919-920, and Jean Burton, First authentic North American record of the British Storm Petrel, 671-672
- Measurements, see Weights and —
- Megaceryle alcyon, 181
- torquata, 665-666
- Melanerpes herminieri*, 180
- Melospiza melodia*, 170, 753-759
- Melozone kieneri, 252
- Memoriam (see also obituary), Gross, Alfred Otto, 521-527
- Linsdale, Jean Myron, 761-774
- Miller, Loye Holmes, 277-285
- Monroe, Sr., Burt Leavelle, 89-96
- Mengel, Robert M., In Memoriam: Burt Leavelle Monroe, Sr., 89-96
- Merganser, Common, 928-929
- Red-breasted, 184-185
- Mergus merganser*, 928-929
- serrator, 184-185
- Michigan, 62-74
- Microrhopias quixensis*, 881-892
- Migration (see also Migration and Orientation), 343-365
- nocturnal, 397-424
- Migration of,
- Anas acuta*, 438
- Calidrus alpina*, 895-901, 927
- Tyrannus tyrannus*, 925-926
- Zenaida macroura*, 924
- Migration and orientation (see also Orientation), periodical literature on, 215-216, 470-472, 703-705, 955
- Miller, Loye Holmes, memoriam, 277-285, photograph of, 276, publications, 284-285
- Milvus migrans govinda*, 166
- Mimocichla plumbea*, 323-342
- Mimus gilvus*, 180-181
- polyglottos, 170
- Mississippi, 437
- Missouri, 175, 677-678
- Mitu salvinii*, 543-559
- Mniotilta varia*, 323-342
- Mockingbird, 170
- Tropical, 180-181
- Molothrus aeneus*, 251
- a. aeneus, 239-255
- a. assimilis, 239-255
- a. loyei, 239-255
- ater, 239-255, 323-342, 560-566, 876
- a. artemisiae, 239-255
- a. ater, 239-255
- a. obscurus, 239-255
- bonariensis, 239-255
- b. minimus, 239-255
- rufoaxillaris, 239
- Molts and plumages,
- Amazilia cyanocephala*, 679
- Anas penelope* × *A. americana*, 666-668
- A. platyrhynchos*, 674-676
- Caprimulgus carolinensis*, 485-519
- Chen h. hyperborea, 858-875
- Chen rossii, 858-875
- Chen rossii × Chen h. hyperborea, 858-875

- Chlorophanes spiza*, 312
Coereba flaveola, 314
Colaptes auratus, 921-924
Colaptes auratus × *C. cafer*, 921-924
C. cafer, 921-924
Colinus virginianus, 116-123
Cyanerpes caeruleus, 310-311
C. cyaneus, 310-311
Dacnis cayana, 312
Euphonia trinitatis, 307
E. violacea, 307
Gallinula chloropus cachinnans, 917-919
Gavia arctica, 175
Hydrobates pelagicus, 671
Leptodon cayanensis, 163-166
Microhoppas quixensis, 886-892
Molothrus ater, 564
Myrotherula axillaris, 886-892
M. fulviventrtris, 886-892
Odontophorinae, hybrids, 268-275
Pauxi unicornis koepekeae, 234-235
Picathartes gymnocephalus, 442
Puffinus gravis, 440-442
Ramphastos sulphuratus, 381
R. s. brevicarinatus, 381-382
Ramphocelus carbo, 304-305
Serinus koliensis, 911-914
Synallaxis courseni, 179
Tachyphonus luctuosus, 307
T. rufus, 306-307
Tangara mexicana, 301-302
T. guttata, 294-295
T. gyrola, 295-301
Thraupis episcopus, 303
T. palmarum, 303-304
Turdus merula, 920
Zeledonia coronata, 6
Zosterops borbonica, 40-60
Z. olivacea, 41-60
 Monroe, Sr., Burt Leavelle, memoriam, 89-96, photograph of, 88
 Monroe, Jr., Burt L., On the type locality of *Ortyx leylandi* Moore, 927, review by, 452-453
 Monson, Gale, Obituary: James Stokley Ligon, 708-710
 Moriarty, Lester J., obituary, 962
 Morphology of, *Calidris alpina*, 893-901
 Chen rossii × *Chen h. hyperborea*, 856-875
 Zeledonia coronata, 15-20
 Morse, Douglass H., Great Horned Owls and nesting seabirds, 426-427
 Mortality, *Melospiza melodia*, 753-759
Molothrus ater, 560-566
 Morton, Eugene S., Food and migration habits of the Eastern Kingbird in Panama, 925-926
 Mrosovsky, N., Black Vultures attack live turtle hatchlings, 672-673
Myadestes townsendi, 244
 t. townsendi, 240-255
Mycteria americana, 428, 715-722
Myiarchus crinitus, 61-74, 323-342, 796-804
 stolidus, 323-342
Myiozetetes cayanensis, 649
Myospiza humeralis, 567-590
Myrmotherula axillaris, 881-892
 fulviventrtris, 881-892
 Nest and nest site,
 Agelaius phoeniceus, 30-34
 Aix sponsa, 425
 Buteo jamaicensis, 75-87
 Catharacta maccormicki, 805-814
 Contopus virens, 796-804
 Dichromanassa rufescens, 429
 Empidonax minimus, 794-804
 Fulica americana, 108-115
 Gallinula chloropus cachinnans, 914-919
 Megasceryle torquata, 665-666
 Mergus serrator, 184-185
 Myiarchus crinitus, 796-804
 Numenius americanus, 182-184
 Passerculus sandwichensis, 185-186
 Ploceus cucullatus, 124-143
 Ramphastos sulphuratus, 385-396
 Sayornis phoebe, 796-804
 Serinus citrinelloides brittoni, 911-914
 S. koliensis, 911-914
 Tyrannus tyrannus, 796-804
 Zeledonia coronata, 8-20
 Zenaidura macroura, 537-542
 Nesting success (see also Breeding), *Buteo jamaicensis*, 80-87
 Catharacta maccormicki, 809-814
 Fulica americana, 108-115
 Gallinula chloropus cachinnans, 914-919

- Odontophorinae, hybrids, 264-275
 Spiza americana, 591-612
 New Jersey, 62-74
 New York, 172-173, 924
 Newfoundland, 171
 Nichols, John Treadwell, obituary, 477
 North Carolina, 62-74, 924
 Northwest Territories, 169
 Nova Scotia, 671-672
 Norton, David W., Two Soviet recoveries of Dunlins banded at Point Barrow, Alaska, 927
 Numenius americanus, 182-184
 Nuthatch, Red-breasted, 323-342
 White-breasted, 175-176, 323-342
 Nuttallornis, 926
 borealis, 61-74, 174
 Numida meleagris, 543-559
 Nycticorax nycticorax, 429, 435-437

 Obituary (see also Memoriam), Allin, Albert Ellis, 225-226
 Bailey, Harold Harris, 225
 Barnes, Claude T., 479-480
 Bartsch, Paul, 959-961
 Beck, Herbert Huebner, 710-711
 Blain, Alexander William, 961
 Cartwright, Bertram William, 226-227
 Davis, Malcolm, 962-963
 Hann, Harry Wilbur, 961-962
 Hebard, Frederick Vanuxem, 480
 Howell, Alfred Brazier, 224-225
 Jaques, Francis Lee, 478-479
 Kemsies, Emerson, 712
 Ligon, James Stokley, 708-710
 Moriarity, Lester J., 962
 Nichols, John Treadwell, 477
 Rowley, John Stuart, 711
 Sheffler, William J., 227-228
 Terry, Mary Ellen McLellan Davidson, 963
 Tyler, John G., 228-229
 Odontophorinae, 264-275
 Ohio, 62-74
 Olendorf, Richard R., and Sharon E. Olendorf, An extensive bibliography of falconry, eagles, hawks, falcons and other diurnal birds of prey (rev.), 200-201
 Olson, Clark S., and H. McClure Johnson, Great White Heron captures and eats Black-necked Stilt, 668
 Olog, Claës Chr., Las aves Sudamericanas (rev.), 192-194
 O'Malia, William F., see Kelleher, James V., and —
 O'Neill, John P., Frontispiece, Wrenthrush, facing page 1, review by, 192-194
 Ontario, 560-566
 Onychorhynchus mexicanus, 383-384
 Oreortyx picta, 264-274, 543-559
 Orientation (see also Migration, Migration and —), Aptenodytes forsteri, 783-786
 Tympanuchus cupido pinnatus, 286-290
 Oriole, Lichtenstein's, 253
 Scarlet-headed, 246-253
 Oriole-blackbird, 251
 Orr, Robert T., Obituary: John Stuart Rowley, 711, and Leo G. Hertlein, Obituary: Mary Ellen McLellan Davidson Terry, 963
 Ortyx leylandi, 927
 Osprey, 98, 929
 Otus asio, 824
 Ovenbird, 323-342
 Owl, Barn, 178, 824
 Burrowing, 669, 824
 Great Horned, 75-87, 174, 426-427, 613-634
 Screech, 824
 Spectacled, 178
 Striped, 178
 Oxyura jamaicensis, 114, 916

 Palaeontology, see Taxonomy and —
 Panama, 1-20, 635-651, 881-892, 924-925
 Pandion haliaetus, 929
 Parabuteo unicinctus, 174
 Parasites, see Diseases and —
 Parasitism by, Mergus serrator, 184-185
 Anas platyrhynchos, 184-185
 A. strepera, 184-185
 Fulica americana, 108-115
 Petrochelidon p. pyrrhonota, 668-669
 Partridge, Roulroul, 543-559
 Stone, 543-559
 Parula americana, 240-255
 Parus atricapillus, 323-342
 Passer domesticus, 246, 924-925

- Passerculus princeps*, 567-590
P. sandwichensis, 185-186, 567-590
Passerina amoena, 240-255
P. cyanea, 323-342
Passerherbulus caudacutus, 240-255, 567-590
P. henslowii, 567-590
Paul, John R., Inventory of zoological collections, Part 2: Aves (rev.), 938
Pauxi pauxi, 233-238
 p. gilliardi, 233-238
 unicornis, 233-238
 u. koepekeae, 234-235
 u. unicornis, 233-238
Pavo cristatus, 543-559
 muticus, 543-559
Paynter, Jr., Raymond A., In memoriam: Alfred Otto Gross, 521-527
Peafowl, Green, 543-559
 Indian, 543-559
Peeters, Hans H., and E. W. Jameson, Jr., American hawking (rev.), 686
Pelecanus occidentalis, 429
Pelican, Brown, 429
Pelz, Henry W., Nest parasitism by Red-breasted Mergansers in Wisconsin, 184-185
Penguin, Adélie, 366-380, 805-814
 Emperor, 366-380, 775-795
Perdica asiatica, 543-559
Peru, 179, 233-238, 429-431, 676
Peterson, Roger Tory, and George E. Watson, Franklin's Gull and Bridled Tern in southern Chile, 670-671
Petrel, British Storm, 671-672
Petrochelidon p. pyrrhonota, 668-669
 p. pyrrhonota, 839-855
Pewee, Eastern Wood, 61-74, 323-342, 796-804
 Greater Antillean, 323-342
 Western Wood, 242
Phalacrocorax auritus, 426-427, 429
Phasianus colchicus, 543-559
 versicolor, 543-559
Pheasant, Blue-eared, 543-559
 Brown-eared, 543-559
 Burmese Peacock, 543-559
 Edward's, 543-559
 Golden, 543-559
 Hume's, 543-559
 Japanese Green, 543-559
 Lady Amherst, 543-559
 Palawan Peacock, 543-559
 Ring-necked, 543-559
 Silver, 543-559
 Swinhoe, 543-559
Pheucticus ludovicianus, 323-342
 melanocephalus, 247
Phillips, Allan R., What is *Amazilia micro-rhyncha*?, 679
Phoebe, Eastern, 61-74, 796-804
Physiology, periodical literature on, 217-221, 474-475, 705-706, 956-957
Picathartes gymnocephalus, 442
Pintail, 98-107, 438
Pipilo erythrophthalmus, 170
 fuscus, 240-255
Piranga flava, 253
 f. hepatica, 251
 ludoviciana, 246
 olivacea, 323-342
Pitangus sulphuratus, 250
Ploceus cucullatus, 124-143
Plover, Black-bellied, 100-107
 American Golden, 181
Plumages, see Molts and —
Pluvialis dominica, 181
Polioptila albiloris, 244-245, 252
 a. vanrossemi, 240-255
 caerulea, 244, 323-342
 c. amoenissima, 240-255
 c. nelsoni, 240-255
 melanura, 244
Polygyny, *Ploceus cucullatus*, 127-133
Polyplectron bicalcaratum, 543-559
 emphanum, 543-559
Poocetes gramineus, 323-342
Poole, Earl L., Obituary: Herbert Huebner Beck, 710-711
Poospiza torquata pectoralis, 251
Population (see also Ecology and —),
 Buteo jamaicensis, 75-87
 Chen h. *hyperborea*, 862-875
 C. rossii, 862-875
 Molothrus ater, 560-566
Population changes, *Melospiza melodia*, 753-759
Population density, 397-424, measurement of, 323-342

- Buteo jamaicensis*, 77-87
Spiza americana, 591-612
 Population dynamics (see also Population densities), *Buteo jamaicensis*, 75-87
Catharacta macormicki, 805-814
Melospiza melodia, 753-759
 Population recovery, *Melospiza melodia*, 753-759
 Predation by, *Accipiter gentilis*, 660
Aquila chrysaetos, 186
Ardea occidentalis, 668
Bubo virginianus, 426-427
Buteo jamaicensis, 669-670
Coragyps atratus, 672-673
Molothrus aeneus, 251
M. a. aeneus, 239-255
M. a. assimilis, 239-255
M. a. loyei, 239-255
M. ater, 239-255, 609
M. a. artemisiae, 239-255
M. a. ater, 239-255
M. a. obscurus, 239-255
M. bonariensis, 239-255
M. b. minimus, 239-255
Nycticorax nycticorax, 435-437
 Predation on,
Agelaius phoeniceus, 251-253, 436
Actitis macularia, 241
Aimophila ruficauda, 253-254
A. ruficeps, 248
A. r. eremoeca, 240-255
Ammodramus savannarum, 240-255
Amphispiza bilineata, 248
Anas platyrhynchos, 186
Arremonops rufivirgata, 252
Bubulcus ibis, 669-670
Buteo jamaicensis, 82-87
Calamospiza melanocorys, 247-248
Calcarius ornatus, 240-255
Campylorhynchus jocosus, 240-255
C. rufinucha, 252
C. r. humilis, 251
Canachites canadensis, 660
Carpodacus purpureus, 240-255
Cassidix melanicterus, 252-253
Chondestes grammacus, 240-255
Coccyzus americanus, 241-242
C. erythrophthalmus, 242
Contopus sordidulus, 240-255
C. s. saturatus, 240-255
C. s. veliei, 240-255
Corvus b. brachyrhynchos, 240-255
Dendroica coronata, 240-255
D. occidentalis, 246
Empidonax difficilis, 240-255
E. oberholseri, 240-255
Eremophila alpestris, 240-255
Fulica americana, 436
Guiraca caerulea, 247
Gymnomystax mexicanus, 251
Himantopus mexicanus, 668
Hirundo rustica, 240-255
H. r. erythrogaster, 240-255
Icterus cucullatus, 252
I. graduacauda, 252
I. gularis, 253
I. g. gularis, 251
I. pustulatus, 246-253
I. p. formosus, 251
I. p. pustulatus, 240-255
I. spurius, 251-252
Iridoprocne bicolor, 240-255
Junco oreganus, 248
J. o. thurberi, 240-255
Larus pipixcan, 436
Limnolophus swainsonii, 239-255
Melospiza kieneri, 252
Myadestes townsendi, 244
M. t. townsendi, 240-255
Parula americana, 240-255
Passer domesticus, 246
Passerherbulus caudatus, 240-255
Passerina amoena, 240-255
Pheucticus melanocephalus, 247
Pipilo fuscus, 240-255
Piranga flava, 253
P. f. hepatica, 251
P. ludoviciana, 246
P. sulphuratus, 250
Poliophtila albiloris, 244-245, 252
P. a. vanrossemi, 240-255
P. caerulea amoensis, 240-255
P. c. nelsoni, 240-255
P. melanura, 244
Poospiza torquata pectoralis, 251
Pyrocephalus rubinus, 242
Pyrrhuloxia sinuata, 246-253
P. s. sinuata, 251
Regulus calendula, 245

- R. satrapa*, 245
R. s. amoenus, 240-255
Richmondia cardinalis, 253
Salpinctes obsoletus, 240-255
Seiurus noveboracensis, 246
S. n. limnaeus, 240-255
Sialia currucoides, 244
Spiza americana, 247
Thraupis bonariensis, 250-251
Thryomanes bewickii, 240-255
T. b. calophonus, 240-255
Thryothorus leucotis, 250
Troglodytes brunneicollis, 252
T. b. cabanisi, 251
Vermivora celata, 246
V. c. orestera, 240-255
Vireo griseus, 245
V. g. griseus, 240-255
V. huttoni, 245
V. h. huttoni, 240-255
V. solitarius, 245
Wilsonia pusilla, 240-255
W. p. pileolata, 240-255
Xanthocephalus xanthocephalus, 436
Zenaidura macroura, 241-252
Z. m. carolinensis, 251
Zonotrichia leucophrys, 249
Z. l. gambelii, 240-255
 Proteins, egg-white, *Odontophorinae*, hybrids, 273-274
Zeledonia coronata, 15-20
Pteroglossus frantzii, 384
torquatus, 392
Pternistis cranchii, 543-559
leucosceptrus, 543-559
Ptilopachus petrosus, 543-559
Psomocolax oryzivorus, 239
Puffinus gravis, 440-442
Pulsatrix perspicillata, 178
Pygoscelis adeliae, 366-380, 805-814
Pyrocephalus rubinus, 242
Pyrrhuloxia, 246-253
sinuata, 246-253
s. sinuata, 251
 Quail, Blackbreasted, 543-559
 Bobwhite, 116-123, 264-275, 323-342
 California, 264-275
 Coturnix, 543-559
 Douglas, 264-275
 Elegant, 264-275
 Gambel's, 264-275
 Jungle Bush, 543-559
 Mearns', 543-559
 Mountain, 264-275, 543-559
 Painted, 543-559
 Scaled, 264-275, 543-559
 Quebec, 919-920
Quiscalus lugubris, 181
quiscula, 100-107, 170, 632
 Raikow, Robert J., Evolution of diving adaptations in the stiff-tail ducks (rev.), 680-682
Ramphastos sulphuratus, 381-396
s. brevicarinatus, 381-382
Ramphocelus carbo, 291-322
 Rawal, U. M., Pariah Kite with double bill, 166
 Redhead, 114
Regulus calendula, 245
satrapa, 245
s. amoenus, 240-255
 Respiration rate,
Aptenodytes forsteri, 782-795
 Réunion Island, 35-60
 Rew, Frances M., see Andrieu, Robert F., and —
Rhinopteryx clamator, 178
 Rhode Island, 168
 Ricard, Matthieu, The mystery of animal migration (rev.), 198-199
Richmondia cardinalis, 253
 Ricklefs, Robert E., Foraging behavior of Mangrove Swallows at Barrow Colorado Island, 635-651, review by, 932-934
Riparia riparia, 180
 Robin, 170, 323-342
 Robins, Jerome D., and Gary D. Schnell, Skeletal analysis of the *Ammodramus-Ammodramus* grassland sparrow complex: A numerical taxonomic study, 567-590
 Rohwer, Sievert A., Molt and the annual cycle of the Chuck-will's-widow, *Caprimulgus carolinensis*, 485-519
Rollulus roulroul, 543-559
 Rol'nik, V. V., Bird embryology (rev.), 685

- Roseberry, John L., and W. D. Klimstra, Weight cycles in male and female Bobwhite Quail, 116-123
- Rosene, Jr., Walter, The Bobwhite Quail: its life and management (rev.), 198
- Ross, C. Chandler, Obituary: Frederick Vanuxem Hebard, 480
- Ross Island, 775-795, 805-814
- Rowley, John Stuart, obituary, 711
- Rutgers, Abram, Birds of Asia (rev.), 453-454
- Ryder, John P., see Trauger, David L., Alex Dzubin, and —
- Salpinctes obsoletus, 240-255
- Salt use, *Loxia curvirostra*, 828-838
- Samuel, David E., Vocal repertoires of sympatric Barn and Cliff Swallows, 839-855
- Sandpiper, Common, 167
- Red-backed, 893-901
- Spotted, 167-168, 181, 241
- Sayornis phoebe, 61-74, 796-804
- Scaup, Lesser, 184-185
- Schmidt-Koenig, Klaus, see Tucker, Vance A., and —
- Schnell, Gary D., see Robins, Jerome D., and —
- Schutz, Walter E., How to attract, house and feed birds (rev.), 447-449
- Seiurus aurocapillus, 323-342
- noveboracensis, 246
- n. linnaeus, 240-255
- Sengal, 130
- Serinus citrinelloides, 911-914
- c. brittoni, 911-914
- koliensis, 911-914
- Setophaga picta, 17
- Sex determination, raptors, 173-174
- Sharp, Brian, A transcontinental Mourning Dove recovery, 924
- Shearwater, Greater, 440-442
- Sheffler, William J., obituary, 227-228
- Short, Lester L., review by, 930-932
- Shortt, Angus H., Obituary: Bertram William Cartwright, 226-227
- Sialia currucoides, 244
- Sicalis luteola, 181
- Sitta canadensis, 323-342
- carolinensis, 175-176, 323-342
- Skinner, John L., see Hamerstrom, Frances, and —
- Skua, Brown, 805-814
- South Polar, 805-814
- Skutch, Alexander F., Life history of the Keel-billed Toucan, 381-396
- Sladen, William L. J., see Boyd, John C., and —
- Small, Arnold, review by, 194-195
- Smith, Jean, and Kenneth L. Diem, Incidence of deformed bills in California Gulls (*Larus californicus*), 435
- Smith, Susan M., The relationship of grazing cattle to foraging rates in Anis, 876-880
- Snow, Barbara K., and D. W. Snow, The feeding ecology of tanagers and honeycreepers in Trinidad, 291-322
- Snow, D. W., see Snow, Barbara K., and —
- Solitaire, Townsend's, 244
- Somateria mollissima, 426-427
- Sparks, John, and Tony Soper, Owls/their natural and unnatural history (rev.), 684-685
- Sparrow, Black-throated, 248
- Cape Sable, 432
- Chipping, 323-342
- Clay-colored, 248-249
- Grasshopper, 170, 185-186, 248
- House, 246, 924-925
- Lark, 248
- LeConte's, 248
- Rock Rufous-crowned, 248
- Russet-tailed, 253-254
- Savannah, 185-186
- Song, 170, 753-759
- Vesper, 323-342
- White-crowned, 249
- White-throated, 170, 172-173
- Speich, Steven, Collyriclum faba: a new host and distributional record from California, 668-669
- Sphenorhynchus abdimii, 428, 715-722

- Speotyto alba*, 824
 cunicularia, 669
Spindalis zeno, 323-342
Spinus tristis, 323-342
Spiza americana, 247, 591-612
Spizella pallida, 248-249
 passerina, 323-342
Spurfowl, Ceylon, 543-559
 Red, 543-559
Squatarola squatarola, 100-107
Starling, 631-632, 816
Stefferd, Alfred and Arnold L. Nelson,
 editors, *Birds in our lives* (rev.), 201
Stellula calliope, 431
Stephenson, J. D., see Luttich, Stuart N.,
 Lloyd B. Keith, and —
Sterna anaethetus, 670-671
Stewart, Paul A., Wood Ducks nesting in
 chimneys, 425
Stilt, Black-necked, 181, 668
Stokes, Allen W., Parental and courtship
 feeding in Red Jungle Fowl, 21-29,
 and H. Warrington Williams, Court-
 ship feeding in gallinaceous birds,
 543-559
Storer, Robert W., Obituary: Alexander
 William Blain, 961, Obituary: Harry
 Wilbur Hann, 961-962
Stork, Abdim's, 715-722
 Marabou, 715-722
 Openbill, 715-722
 Painted, 715-722
 White, 715-722
Strauch, Jr., Joseph G., Killdeer breeding
 range extension, 171
Sturnus vulgaris, 631-632, 816
Surinam, 178
Survival, *Buteo jamaicensis*, 81-87
 Catharacta maccormicki, 811-814
Sutton, George Miksch, review by, 444-
 447
Swallow, Bank, 180
 Barn, 180-181, 243, 839-855
 Cliff, 668-669, 839-855
 Mangrove, 635-651
 Tree, 243, 635-651
 Violet-green, 635
Swift, Chimney, 177
Swimming speed (see also Behavior),
 Aptenodytes forsteri, 781-795
 Synallaxis brachyura, 179
 courseni, 179
 subpudica, 179
Syrmaticus humiae, 543-559

Tachycineta thalassina, 635
Tachyphonus luctuosus, 291-322
 rufus, 291-322
Tanager, Bay-headed, 291-322
 Blue and Yellow, 250-251
 Blue-gray, 291-322
 Hepatic, 253
 Palm, 291-322
 Scarlet, 323-342
 Silver-beaked, 291-322
 Speckled, 291-322
 Striped-headed, 323-342
 Turquoise, 291-322
 Western, 246
 White-lined, 291-322
 White-shouldered, 291-322
Tangara guttata, 291-322
 gyrola, 291-322
 mexicana, 291-322
Taxonomy, *Ammodramus*, 567-590
 Ammodramus bairdii, 567-590
 A. savannarum, 567-590
 Ammospiza, 567-590
 A. caudacuta, 567-590
 A. maritima, 567-590
 A. mirabilis, 567-590
 A. nigrescens, 567-590
 Brachypteraciidae, 723-752
 Calidris alpina, 893-901
 Coraciidae, 723-752
 Leptosomatidae, 723-752
 Myospiza humeralis, 567-590
 Passerculus princeps, 567-590
 P. sandwichensis, 567-590
 Passerherbulus caudacutus, 567-590
 P. henslowii, 567-590
 Pauxi unicornis koepekeae, 235-237
 Xenospiza baileyi, 567-590
Taxonomy and Palaeontology, periodical
 literature on, 221-224, 475-477, 706-
 707, 957-959
Temperature, body, *Aptenodytes forsteri*,
 366-380, 791-795
 Pygoscelis adeliae, 366-380

- Terborgh, John W., see Weske, John S., and —
- Tern, Bridled, 670-671
 Caspian, 100-107
 Royal, 100-107
 Sandwich, 676
- Territoriality, *Canachites canadensis*, 652-664
 Contopus virens, 796-804
 Empidonax minimus, 796-804
 Myiarchus crinitus, 796-804
 Ploceus cucullatus, 136
 Sayornis phoebe, 796-804
 Spiza americana, 591-612
 Tympanuchus cupido pinnatus, 286-290
 Tyrannus tyrannus, 796-804
 Zenaidura macroura, 534-542
- Terry, Mary Ellen McLellan Davidson, obituary, 963
- Texas, 665-666
- Thailand, 924
- Thalasseus maximus*, 100-107
 sandvicensis, 676
- Thermoregulation, 716-722
- Thompson, William L., review by, 187-190
- Thrasher, Brown, 170, 323-342
- Thraupis bonariensis*, 250-251
 episcopus, 291-322
 palmarum, 291-322
- Thrush, Hermit, 323-342
 Red-legged, 323-342
- Thryomanes bewickii*, 168, 240-255
 b. calophonus, 240-255
- Thryothorus leucotis*, 250
- Tiaris bicolor*, 323-342
- Tierra Del Fuego, 440-442
- Tinbergen, Niko, and Hugh Falkus, Signals for survival (rev.), 938
- Todd, James M., see Easterla, David A., and —
- Tomba, Frank S., Catastrophic mortality and its population consequences, 753-759
- Toucan, Keel-billed, 381-396
- Toucanet, Blue-throated, 381-396
- Towhee, Rufous-sided, 170
- Toxostoma rufum*, 170, 323-342
- Tragopan, Satyr, 543-559
- Tragopan satyrus, 543-559
- Trauger, David L., Alex Dzubin, and John P. Ryder, White Geese intermediate between Ross' Geese and Lesser Snow Geese, 856-875
- Trinidad, 167-168, 291-322
- Troglodytes brunneicollis*, 252
 b. cabanisi, 251
- Tucker, Vance A., and Klaus Schmidt-Koenig, Flight speed of birds in relation to energetics and wind direction, 97-107
- Turdus merula*, 919-920
 migratorius, 170, 323-342
- Turkey, Ocellated, 543-559
- Tvrđik, Genevieve M., Pendulum display by Olive-sided Flycatcher, 174
- Tyler, Hamilton, and John R. Arnold, Obituary: John G. Tyler, 228-229
- Tyler, John G., obituary, 228-229
- Tympanuchus cupido pinnatus*, 286-290
- Tyrannus caudifasciatus*, 323-342
 dominicensis, 61-74, 181
 melancholicus, 647-649
 tyrannus, 61-74, 796-804, 925-926
- Tyto alba*, 178, 824
- Union of Soviet Socialist Republics, 927
- Utter, James M., Eugene A. LeFebvre, and Jon S. Greenlaw, A technique for sampling blood from small passerines, 169-171
- Van Tets, Gerald F., review by, 449-451
- Veery, 323-342
- Vermivora celata*, 246
 c. orestera, 240-255
- Verner, Jared, and Mary F. Wilson, Mating systems, sexual dimorphism, and the role of male North American passerine birds in the nesting cycle (rev.), 932-934
- Victoria, Janice K., Ellen L. Coutlee, and Martin Graham, see Collias, Nicholas E., —
- Vireo, Hutton's, 245
 Red-eyed, 323-342
 Solitary, 245
 Thick-billed, 323-342
 White-eyed, 245
- Vireo crassirostris*, 323-342
 griseus, 245

- g. griseus, 240-255
 huttoni, 245
 h. huttoni, 240-255
 olivaceus, 323-342
 solitarius, 245
 Virginia, 62-74, 796-804
 Vocalizations of, *Accipiter striatus*, 617
Bubo virginianus, 617
Corvus brachyrhynchos, 613-634
C. b. pascuus, 626-632
Empidonax traillii, 429-431
Gallinula chloropus cachinnans, 916
Gallus gallus, 23-29
Hirundo rustica erythrogaster, 839-855
Megascyle torquata, 665-666
Microrhopias quicensis, 882-892
Myrmotherula axillaris, 882-892
M. fulviventris, 882-892
Numenius americanus, 183
Passerculus sandwichensis, 185-186
Petrochelidon p. pyrrhonota, 839-855
Ramphastos sulphuratus, 384-396
Zeledonia coronata, 3-20
Zonotrichia albicollis, 172-173
Zosterops borbonica, 43-60
Z. olivacea, 44-60
 Vulture, Black, 672-673
 Turkey, 624
 Wallace, G. J., Chairman, Report of the committee on conservation, 902-910
 Warbler, Audubon's, 924
 Black-and-white, 323-342
 Black-throated Blue, 180
 Black-throated Green, 323-342
 Hermit, 246
 Myrtle, 323-342
 Olive-capped, 323-342
 Orange-crowned, 246
 Palm, 323-342
 Pine, 323-342
 Swainson's, 245-246
 Wilson's, 246
 Yellow-throated, 323-342
 Waterthrush, Northern, 246
 Watson, George E., Molting Greater Shearwaters (*Puffinus gravis*) off Tierra Del Fuego, 440-442, review by, 199-200, see Peterson, Roger Tory, and —
 Waxwing, Cedar, 323-342, 926
 Weaverbird, Village, 124-143
 Weights and measurements, *Atelornis crossleyi*, 746-747
Atelornis pittoides, 746-747
Brachypteracias leptosomus, 746-747
B. squamigera, 746-747
Calidris alpina, 893-901
Chen h. hyperborea, 858-875
C. rossii, 858-875
C. rossii × *Chen h. hyperborea*, 858-875
Chlorophanes spiza, 293
Coereba flaveola, 293
Colinus virginianus, 116-123
Coracias g. garrulus, 746-747
Contopus virens, 796-804
Cyanerpes caeruleus, 293
C. cyaneus, 293
Dacnis cayana, 293
Empidonax minimus, 796-804
Euphonia trinitatis, 293
E. violacea, 293
Eurystomus glaucurus afer, 746-747
Gallinula chloropus cachinnans, 917-919
Gavia arctica, 175
Larus minutus, 437
Leptosomus d. discolor, 746-747
Myiarchus crinitus, 797
Numenius americanus, 184
Ploceus cucullatus, 137
Ramphocelus carbo, 293
Ramphastos sulphuratus, 390-396
Sayornis phoebe, 796-804
Serinus citrinelloides brittoni, 914
S. koliensis, 914
Synallaxis courseni, 179
Tachyphonus luctuosus, 293
T. rufus, 293
Tangara guttata, 293
T. mexicana, 293
T. gyrola, 293
Thraupis episcopus, 293
T. palmarum, 293
T. tyrannus, 797
Uratelornis chimaera, 746-747
Zosterops borbonica, 41-60
 Weller, Milton W., Experimental parasitism of American Coot nests, 108-115

- Werner, Harold W., Cape Sable Sparrows rediscovered on Cape Sable, 432
- Weske, John S., and John W. Terborgh, A new subspecies of Curassow of the genus *Pauxi* from Peru, 233-238
- West Indies, 250
- Weydemeyer, Winton, Injured Calliope Hummingbird lifted by another, 431
- White-eye, Mascarene, 35-60
- Whitney, Nathaniel R., Obituary: Emerson Kemsies, 712, Obituary: Lester J. Moriarty, 962
- Widgeon, American, 98-107, 666-668
European, 666-668
- Wiens, John A., "Egg dumping" by Grasshopper Sparrow in a Savannah Sparrow nest, 185-186
- Wiley, R. Haven, Cooperative roles in mixed flocks of antwrens (Formicariidae), 881-892
- Williams, H. Warrington, see Stokes, A. W., and —
- Willoughby, Ernest J., Drinking responses of the Red Crossbill (*Loxia Curvirostra*) to solutions of NaCl, MgCl₂, and CaCl₂, 828-838
- Wilsonia pusilla, 240-255
p. pileolata, 240-255
- Wing-loading, 927-928
- Wisconsin, 62-74, 184-185, 185-186, 928-929
- Wolford, James W., and David A. Boag, Food habits of Black-crowned Night Herons in Southern Alberta, 435-437
- Wood, Merrill, A bird-bander's guide to determination of age and sex of selected species (rev.), 195-197
- Wood, Robert C., Population dynamics of breeding South Polar Skuas of unknown age, 805-814
- Woodpecker, Guadeloupe, 180
Hairy, 323-342
- Woollenden, Glen E., editor of Periodical literature, 202, 244, 455-477, 688-707, 939-959, review by, 686-687
- Wren, Bewick's, 168, 243
Boucard, 243
Brown-throated, 252
Buff-breasted, 250
Canon, 677
Rock, 243-244
Rufous-naped, 252
- Wrenthrush, 1-20
- Wyoming, 435
- Xanthocephalus xanthocephalus, 436, 677-678
- Xenops, Plain, 883-892
- Xenops minutus, Furnariidae, 883-892
- Xenorhynchus asiaticus, 428
asiaticus, 715-722
- Xenospiza baileyi, 567-590
- Yellow-Finch, Grassland, 181
- Yellowthroat, 180, 323-342
Bahaman, 323-342
- Zeledonia coronata, 1-20
- Zenaida aurita, 323-324
- Zenaidura macroura, 241-252, 256-263, 323-342, 528-542, 924
m. carolinensis, 251
- Zonotrichia albicollis, 170, 172-173
leucophrys, 249
l. gambelii, 240-255
- Zosterops borbonica, 35-60
lateralis, 38
olivacea, 35-60
- Zimmerman, John L., The territory and its density dependent effect in *Spiza americana*, 591-612

The Auk

A Quarterly Journal of Ornithology

EDITOR

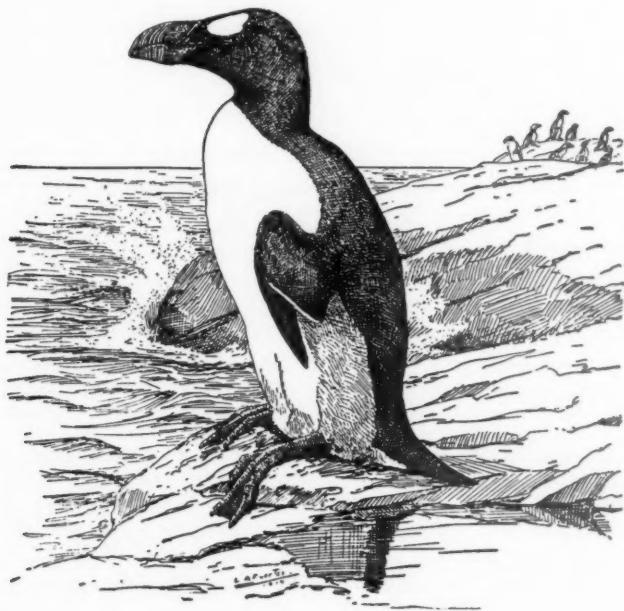
OLIVER L. AUSTIN, JR.

ASSISTANT EDITOR

FLORENCE A. PETTIS

ASSOCIATE EDITORS

JOHN W. HARDY, GLEN E. WOOLFENDEN



VOLUME 88

PUBLISHED BY

THE AMERICAN ORNITHOLOGISTS' UNION

1971

DATES OF ISSUE OF "THE AUK"

VOL. 88, No. 1—22 January 1971

VOL. 88, No. 2—12 April 1971

VOL. 88, No. 3—1 July 1971

VOL. 88, No. 4—12 October 1971

CONTENTS OF VOLUME 88

NUMBER 1

A FIELD STUDY OF THE WRENTHRUSH, <i>ZELEDONIA CORONATA</i> . <i>James H. Hunt</i>	1
PARENTAL AND COURTSHIP FEEDING IN RED JUNGLE FOWL. <i>Allen W. Stokes</i>	21
NEST BUILDING AND EGG LAYING BY REDWINGED BLACKBIRDS IN RESPONSE TO ARTIFICIAL MANIPULATIONS. <i>Larry C. Holcomb</i>	30
ECOLOGY AND EVOLUTION OF THE SYMPATRIC MASCARENE WHITE- EYES, <i>ZOSTEROPS BABONICA</i> AND <i>ZOSTEROPS OLIVACEA</i> . <i>Frank B. Gill</i>	35
FLYCATCHER HABITAT SELECTION IN THE EASTERN DECIDUOUS FOREST. <i>Henry A. Hespenheide</i>	61
POPULATION DYNAMICS OF THE RED-TAILED HAWK (<i>BUTEO JAMAICENSIS</i>) AT ROCHESTER, ALBERTA. <i>Stuart N. Luttich, Lloyd B. Keith, and J. D. Stephenson</i>	75
IN MEMORIAM: BURT LEAVELLE MONROE, SR. <i>Robert M. Mengel</i>	88
FLIGHT SPEEDS OF BIRDS IN RELATION TO ENERGETICS AND WIND DIRECTION. <i>Vance A. Tucker and Klaus Schmidt-Koenig</i>	97
EXPERIMENTAL PARASITISM OF AMERICAN COOT NESTS. <i>Milton W. Weller</i>	108
ANNUAL WEIGHT CYCLES IN MALE AND FEMALE BOBWHITE QUAIL. <i>John L. Roseberry and W. D. Klimstra</i>	116
SOME OBSERVATIONS ON BEHAVIORAL ENERGETICS IN THE VILLAGE WEAVERBIRD. I. COMPARISON OF COLONIES FROM TWO SUB- SPECIES IN NATURE. <i>Nicholas E. Collias and Elsie C. Collias</i>	124
SOME OBSERVATIONS ON BEHAVIORAL ENERGETICS IN THE VILLAGE WEAVERBIRD. II. ALL-DAY WATCHES IN AN AVIARY. <i>Nicholas E. Collias, Janice K. Victoria, Ellen L. Coutlee, and Martin Graham</i>	133
PROCEEDINGS OF THE EIGHTY-EIGHTH STATED MEETING OF THE AMERICAN ONITHOLOGISTS' UNION. <i>Richard C. Banks, Secretary</i>	144
GENERAL NOTES	
Plumage and behavior of a juvenile Gray-headed Kite. <i>Mercedes S. Foster</i>	163
Pariah Kite with double bill. <i>U. M. Rawal</i>	166
Notes on a nocturnal roost of Spotted Sandpipers in Trinidad, West Indies. <i>Michael Gochfeld</i>	167
First Rhode Island record of Bewick's Wren. <i>Elise Lapham</i>	168

Flight speed of Arctic and Red-throated Loons. <i>Rolph A. Davis</i>	169
A technique for sampling blood from small passerines. <i>James M. Utter, Eugene A. LeFebvre, and Jon S. Greenlaw</i>	169
Killdeer breeding range extension. <i>Joseph G. Strauch, Jr.</i>	171
White-throated Sparrow breeding in downtown Buffalo, New York. <i>Robert F. Andrie and Frances M. Rew</i>	172
Cloacal sexing of raptors. <i>Frances Hamerstrom and John L. Skinner</i>	173
Pendulum display by Olive-sided Flycatcher. <i>Genevieve M. Tordik</i>	174
First specimen of Arctic Loon from Missouri. <i>David A. Easterla and Floyd Lawhon</i>	175
Use of blister beetle in bill-sweeping by White-breasted Nuthatch. <i>Lawrence Kilham</i>	175
Mating activity of Ruffed Grouse. <i>H. Lee Gladfelter and R. Scott McBurney</i>	176
Foliage-gleaning by Chimney Swifts (<i>Chaetura pelagica</i>). <i>William G. George</i>	177
Tytonidae \times Strigidae cross produces fertile eggs. <i>G. Michael Flieg</i>	178
Interspecific cacique colonies in Surinam. <i>D. W. Dunham</i>	178
A new species of spinetail (<i>Synallaxis</i>) from Peru. <i>Emmet R. Blake</i>	179
New bird records from Guadalupe and its dependencies. <i>Robert W. Guth</i> ..	180
Observations at a Long-billed Curlew nest. <i>Walter D. Gaul</i>	182
Nest parasitism by Red-breasted Mergansers in Wisconsin. <i>Henry W. Petzl</i>	184
"Egg-dumping" by the Grasshopper Sparrow in a Savannah Sparrow nest. <i>John A. Wiens</i>	185
Golden Eagle attacks a Mallard. <i>James V. Kelleher and William F. O'Malia</i>	186
REVIEWS. <i>Edited by John William Hardy</i>	187
PERIODICAL LITERATURE. <i>Edited by Glen E. Woolfenden</i>	202
OBITUARIES	224
NOTES AND NEWS	229

NUMBER 2

A NEW SUBSPECIES OF CURASSOW OF THE GENUS <i>PAUXI</i> FROM PERU. <i>John S. Weske and John W. Terborgh</i>	233
FURTHER INFORMATION ON THE HOST RELATIONS OF THE PARASITIC COWBIRD. <i>Herbert Friedmann</i>	239
EFFECTS OF COLORED BACKGROUNDS ON FOOD SELECTION BY PENNED MOURNING DOVES (<i>ZENAIIDURA MACROURA</i>). <i>W. Reid Goforth and Thomas S. Baskett</i>	256

EXPERIMENTAL HYBRIDIZATION OF THE NEW WORLD QUAIL (ODON- TOPHORINAE). <i>Paul A. Johnsgard</i>	264
IN MEMORIAM: LOYE HOLMES MILLER. <i>Hildegard Howard</i>	276
ORIENTATION IN PRAIRIE CHICKENS. <i>Raymond K. Anderson</i>	286
THE FEEDING ECOLOGY OF TANAGERS AND HONEYCREEPERS IN TRINIDAD. <i>Barbara K. Snow and D. W. Snow</i>	291
POPULATION DENSITIES OF BIRDS DERIVED FROM TRANSECT COUNTS. <i>John T. Emlen</i>	323
A RADAR AND DIRECT VISUAL STUDY OF PASSERINE SPRING MIGRA- TION IN SOUTHERN LOUISIANA. <i>Sidney A. Gauthreaux, Jr.</i>	343
TELEMETRY STUDIES OF THE INTERNAL BODY TEMPERATURES OF ADÉLIE AND EMPEROR PENGUINS AT CAPE CROZIER, ROSS ISLAND, ANTARCTICA. <i>John C. Boyd and William J. L. Sladen</i>	366
LIFE HISTORY OF THE KEEL-BILLED TOUCAN. <i>Alexander F. Skutch</i>	381
THE DISTRIBUTION OF NOCTURNAL MIGRANTS IN THE AIR SPACE. <i>Frank C. Bellrose</i>	397
GENERAL NOTES	
Wood Ducks nesting in chimneys. <i>Paul A. Stewart</i>	425
Great Horned Owls and nesting seabirds. <i>Douglass H. Morse</i>	426
Escape responses and swimming abilities of nestling Golden Eagles. <i>Gary L. Hickman</i>	427
Flapping rates of storks in level flight. <i>M. P. Kahl</i>	428
Northern breeding record for Reddish Egret. <i>Griffing Bancroft</i>	429
Traill's Flycatchers of the "fee-bee-o" song form wintering in Peru. <i>Leon J. Gorski</i>	429
Injured Calliope Hummingbird lifted by another. <i>Winton Weydemeyer</i>	431
Cape Sable Sparrows rediscovered on Cape Sable. <i>Harold W. Werner</i>	432
Thickness of 1967-69 Whooping Crane eggshells compared to that of pre- 1910 specimens. <i>Daniel W. Anderson and J. F. Kreitzer</i>	433
Incidence of deformed bills in California Gulls (<i>Larus californicus</i>). <i>Jean Smith and Kenneth L. Diem</i>	435
Food habits of Black-crowned Night Herons in southern Alberta. <i>James W. Wolford and David A. Boag</i>	435
A specimen of the Little Gull from northern Mississippi. <i>W. Marvin Davis</i> ..	437
A documented instance of reverse migration in the Pintail. <i>Earl B. Baysinger and Richard D. Bauer</i>	438
Herring and Ring-billed Gulls paired or courting in Maryland in January and February. <i>Hervey Brackbill</i>	438
Molting Greater Shearwaters (<i>Puffinus gravis</i>) off Tierra del Fuego. <i>George E. Watson</i>	440
Vestigial erectile crest in <i>Picathartes</i> . <i>G. Michael Flieg</i>	442
REVIEWS. <i>Edited by John William Hardy</i>	443
PERIODICAL LITERATURE. <i>Edited by Glen E. Woolfenden</i>	455

OBITUARIES	477
A.O.U. COMMITTEES, 1970-1971	480
NOTES AND NEWS	482

NUMBER 3

MOLT AND THE ANNUAL CYCLE OF THE CHUCK-WILL'S-WIDOW, <i>CAPRIMULGUS CAROLINENSIS</i> . <i>Sievert A. Rohwer</i>	485
IN MEMORIAM: ALFRED OTTO GROSS. <i>Raymond A. Paynter, Jr.</i>	520
SOCIAL ORGANIZATION OF PENNED MOURNING DOVES. <i>W. Reid Gofforth and Thomas S. Baskett</i>	528
COURTSHIP FEEDING IN GALLINACEOUS BIRDS. <i>A. W. Stokes and H. Warrington Williams</i>	543
SEX RATIO AND MORTALITY IN THE BROWN-HEADED COWBIRD. <i>James A. Darley</i>	560
SKELETAL ANALYSIS OF THE <i>AMMODRAMUS-AMMOSPIZA</i> GRASSLAND SPARROW COMPLEX: A NUMERICAL TAXONOMIC STUDY. <i>Jerome D. Robins and Gary D. Schnell</i>	567
THE TERRITORY AND ITS DENSITY DEPENDENT EFFECT IN <i>SPIZA AMERICANA</i> . <i>John L. Zimmerman</i>	591
SELECTED VOCALIZATIONS OF THE COMMON CROW. <i>Dwight R. Chamberlain and George W. Cornwell</i>	613
FORAGING BEHAVIOR OF MANGROVE SWALLOWS AT BARRO COLORADO ISLAND. <i>Robert E. Ricklefs</i>	635
TERRITORIALITY IN ALASKAN SPRUCE GROUSE. <i>Laurence N. Ellison</i> ..	652
GENERAL NOTES	
Nesting of the Ringed Kingfisher in the United States. <i>Albert D. McGrew</i> ..	665
Comparison of two presumed European \times American Widgeon hybrids. <i>John P. Hubbard</i>	666
Great White Heron captures and eats Black-necked Stilt. <i>Clark S. Olson and H. McClure Johnson</i>	668
<i>Collyriclum faba</i> : a new host and distributional record from California. <i>Steven Speich</i>	668
Red-tailed Hawk preys on Cattle Egret. <i>William D. Courser and James J. Dinsmore</i>	669
Franklin's Gull and Bridled Tern in southern Chile. <i>Roger Tory Peterson and George E. Watson</i>	670
First authentic North American record of the British Storm Petrel (<i>Hydrobates pelagicus</i>). <i>Raymond McNeil and Jean Burton</i>	671

Black Vultures attack live turtle hatchlings. <i>N. Mrosovsky</i>	672
Attempted hormonal induction of brood patches and broodiness in ducks. <i>E. O. Höhn</i>	674
First report of Sandwich Terns in Peru. <i>Kenneth E. Campbell, Jr.</i>	676
Publication dates of the North American Fauna series. <i>Richard C. Banks</i> ..	676
The Cañon Wren (<i>Catherpes mexicanus</i>) raiding food storage of a trypoxylid wasp. <i>Robert F. Martin</i>	677
Bill deformity of a Yellow-headed Blackbird. <i>David A. Easterla and James M. Todd</i>	677
What is <i>Amazilia microrhyncha</i> ? <i>Allan R. Phillips</i>	679
REVIEWS. <i>Edited by John William Hardy and Martin L. Morton</i>	680
PERIODICAL LITERATURE. <i>Edited by Glen E. Woolfenden</i>	688
OBITUARIES	708
NOTES AND NEWS	713

NUMBER 4

SPREAD-WING POSTURES AND THEIR POSSIBLE FUNCTIONS IN THE CICONIIDAE. <i>M. P. Kahl</i>	715
THE RELATIONSHIPS AND EVOLUTION OF THE ROLLERS: FAMILIES CORACIDAE, BRACHYPTERACHIDAE, AND LEPTOSOMATIDAE. <i>Joel Cracraft</i>	723
CATASTROPHIC MORTALITY AND ITS POPULATION CONSEQUENCES. <i>Frank S. Tompa</i>	753
IN MEMORIAM: JEAN MYRON LINSDALE. <i>William H. Behle</i>	760
DIVING BEHAVIOR OF THE EMPEROR PENGUIN, <i>APTENODYTES FORSTERI</i> . <i>G. L. Kooyman, C. M. Drabek, R. Elsner, and W. B. Campbell</i>	775
NICHE RELATIONSHIPS AMONG SOME DECIDUOUS FOREST FLY- CATCHERS. <i>David W. Johnston</i>	796
POPULATION DYNAMICS OF BREEDING SOUTH POLAR SKUAS OF UN- KNOWN AGE. <i>Robert C. Wood</i>	805
THE ATTACK AND STRIKE OF SOME NORTH AMERICAN RAPTORS. <i>George E. Goslow, Jr.</i>	815
DRINKING RESPONSES OF THE RED CROSSBILL (<i>LOXIA CURVIROSTRA</i>) TO SOLUTIONS OF NaCl, MgCl ₂ , AND CaCl ₂ . <i>Ernest J. Willoughby</i>	828
VOCAL REPERTOIRES OF SYMPATRIC BARN AND CLIFF SWALLOWS. <i>David E. Samuel</i>	839

WHITE GEESSE INTERMEDIATE BETWEEN ROSS' GEESSE AND LESSER SNOW GEESSE. <i>David L. Trauger, Alex Dzubin, and John P. Ryder</i>	856
THE RELATIONSHIP OF GRAZING CATTLE TO FORAGING RATES IN ANIS. <i>Susan M. Smith</i>	876
COOPERATIVE ROLES IN MIXED FLOCKS OF ANTWERNS (FORMICARIIDAE). <i>R. Haven Wiley</i>	881
BILL LENGTHS, WINTERING AREAS, AND TAXONOMY OF NORTH AMERICAN DUNLINS, <i>CALIDRIS ALPINA</i> . <i>Stephen F. MacLean, Jr., and Richard T. Holmes</i>	893
REPORT OF THE COMMITTEE ON CONSERVATION, 1970-71	902
GENERAL NOTES	
Two sympatric canaries, <i>Serinus koliensis</i> and <i>S. citrinelloides</i> , in western Kenya. <i>P. L. Britton</i>	911
Common Gallinule breeding biology and development. <i>Leigh H. Fredrickson</i>	914
European Blackbird (<i>Turdus merula</i>) in Quebec. <i>Raymond McNeil and André Cyr</i>	919
Pairing in hybrid flicker populations in eastern Colorado. <i>Carl E. Bock</i>	921
Audubon's Warbler in North Carolina. <i>Betty Davis</i>	924
A transcontinental Mourning Dove recovery. <i>Brian Sharp</i>	924
House Sparrows feeding young at night. <i>Maurice Broun</i>	924
Food and migration habits of the Eastern Kingbird in Panama. <i>Eugene S. Morton</i>	925
Two Soviet recoveries of Dunlins banded at Point Barrow, Alaska. <i>David W. Norton</i>	927
On the type locality of <i>Ortyx leylandi</i> Moore. <i>Burt L. Monroe, Jr.</i>	927
Wing-loading—a plea for consistency in usage. <i>Richard J. Clark</i>	927
Bald Eagles stealing fish from Common Mergansers. <i>Thomas C. Grubb, Jr.</i>	928
First records of Heermann's Gull (<i>Larus heermanni</i>) for Arizona. <i>Lawrence N. Huber</i>	929
REVIEWS. <i>Edited by John William Hardy</i>	930
PERIODICAL LITERATURE. <i>Edited by Glen E. Woolfenden</i>	939
OBITUARIES	959
NOTES AND NEWS	964
INDEX TO VOLUME 88. <i>Compiled by Willetta Lueshen</i>	966

